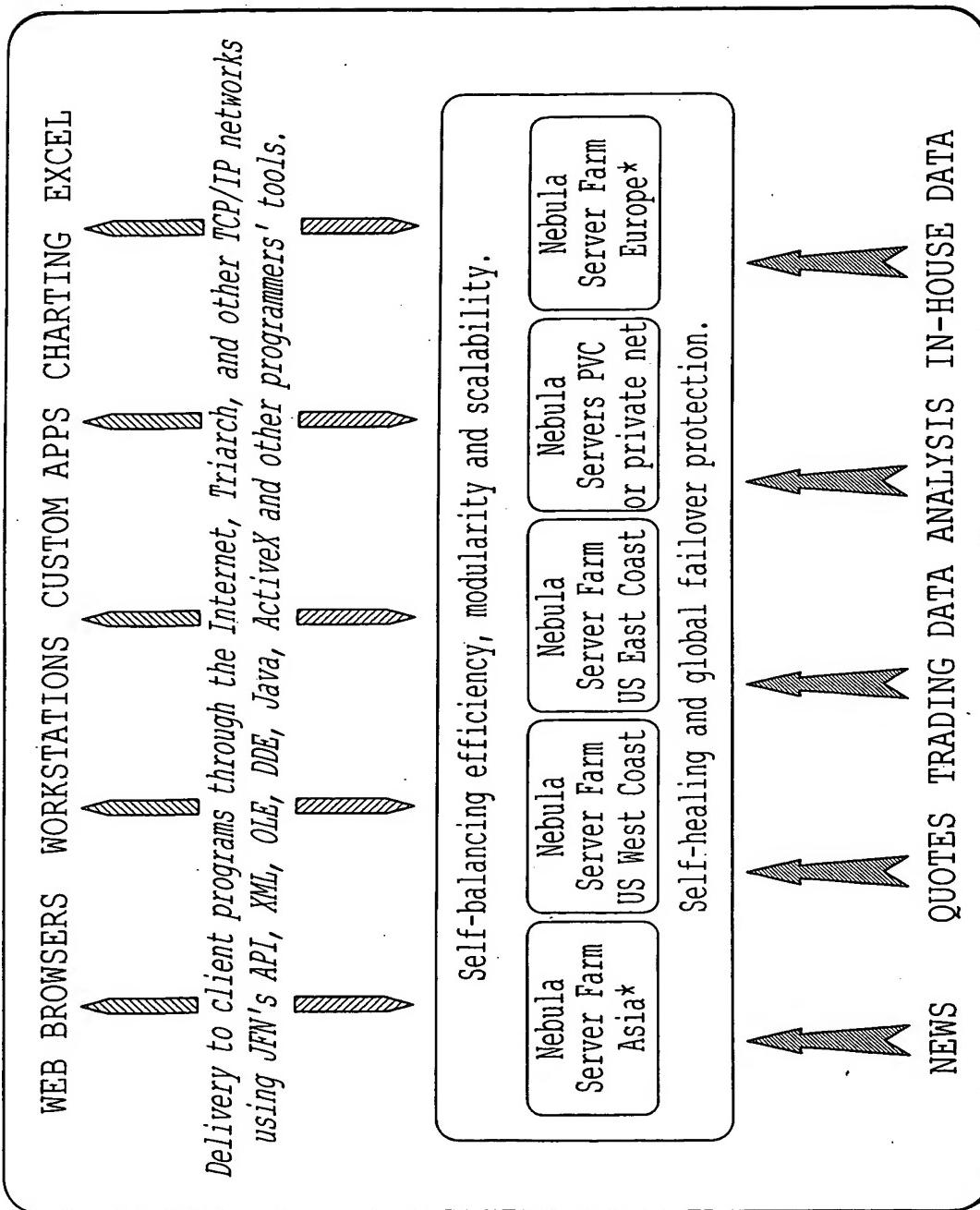


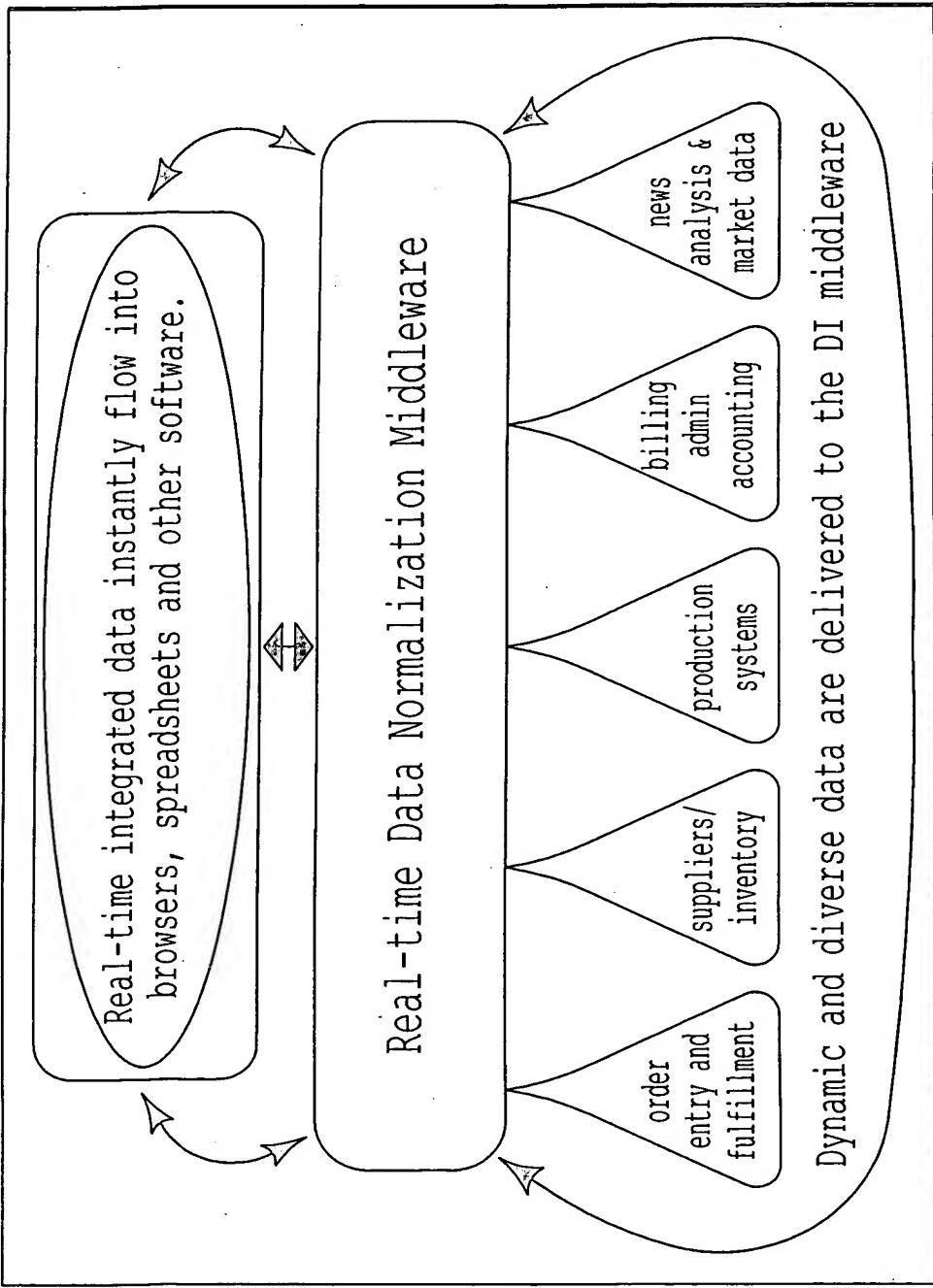
FIG. 2



MARKET DATA PROVIDERS COOPERATIVELY COMBINE AND SELL THEIR DATA THROUGH JEN'S NEBULA MIDDLEWARE TO MULTIPLE CLIENT PROGRAMS ON THE INTERNET AND PRIVATE NETWORKS.

FIG. 3

REAL-TIME DATA INTEGRATION WITH DI MIDDLEWARE



DI middleware dynamically integrates corporate data with data from outside sources through the Internet, extranets, wide area networks and local area networks.

FIG. 4

```
<!-- XEBULA XML TAGSET -->
- <!-- -->
- <!-- CLIENT TO API -->
- <DIGIGRATOR>
  - <XEBULA>
    <LOGIN username="" password="" appkey="" ip="" port=""
          services= "on/off" diags= "on/off" />
    <LOGOUT />
    <SERVICE id="" source="" sourcetype="" type="" />
    <GETQUOTEINFO id="" source="" alias="" symbol="" state=""
                  type="" />
  - <GETQUOTE id="" source="" alias="" symbol="" state=""
              type="" />
    <FIELD>name of field</FIELD>
  </GETQUOTE>
  - <STARTQUOTE id="" source="" alias="" symbol="" state=""
                type="" />
    <FIELD>name of field</FIELD>
    - <!-- ***deprecated*** -->
  </STARTQUOTE>
  <STOPQUOTE id="" />
  - <GETHEADLINES source="" hours="" stories="" mrdate=""
                  mrtime="" />
    - <NEWSCODES>
      <NEWSCODE type="">codetext</NEWSCODE>
    </NEWSCODES>
  </GETHEADLINES>
  <GETSTORY id="" source="" date="" time="">headline text
    of story to get</GETSTORY>
  <GETFIXEDPAGE id="" source="" page="" />
  <STARTFIXEDPAGE id="" source="" page="" />
  <STOPFIXEDPAGE id="" />
</XEBULA>
```

```
_ <XEBULAINFO>
  <WHORU />
</XEBULAINFO>
_ <XEBULAFILE>
  <SETFILE filename="">text to set</SETFILE>
  <GETFILE filename="" />
  <DELETEFILE filename="" />
  <GET DIR />
</XEBULAFILE>
- <!-- -->
- <!-- API TO CLIENT -->
_ <XEBULA>
  <DIAG type="">(types-> error,connection,login,ack,nack,init)
    text of diagnostic</DIAG>
  <SERVICE id="" source="" sourcetype="" type=""> "on" or
    "off"</SERVICE>
  <SESSION />
  <QUOTE id="" type="" field="" denom="">value/text of
    quote</QUOTE>
  <GETQUOTEEND id="" />
  <QUOTEINFO id="" source="" alias="" symbol="" state="" type="" />
  <QUOTEINFOEND />
_ <HEADLINE source="" date="" time="" type="">
  headline text
  _ <NEWSCODES>
    <NEWSCODE type=""> codetext </NEWSCODE>
  </NEWSCODES>
</HEADLINE>
_ <HEADLINECHANGE>
  _ <HEADLINE source="" date="" time="" type="old">
    oldHeadlineText
  _ <NEWSCODES>
```

```
<NEWSCODE type="">codetext</NEWSCODE>
</NEWSCODES>
</HEADLINE>
- <HEADLINE source="" date="" time="" type="new">
    newHeadlineText
    - <NEWSCODES>
        <NEWSCODE type="">codetext</NEWSCODE>
        </NEWSCODES>
    </HEADLINE>
</HEADLINECHANGE>
<GETHEADLINESEND source="" />
- <STORY id="" date="" time="">
    story text
    - <STORYHEADLINE source="" date="" time="" type="">
        headline text
        - <NEWSCODES>
            <NEWSCODE type="">codetext</NEWSCODE>
            </NEWSCODES>
        </STORYHEADLINE>
    </STORY>
    - <FIXEDPAGE id="" row="" column="" type="">
        text to display
        <FPATTR start="" stop="" time="">name of
            attribute</FPATTR>
    </FIXEDPAGE>
</XEBULA>
- <XEBULAINFO>
    <TITLE>title</TITLE>
    <VERSION date="">version</VERSION>
    <COPYRIGHT>copyright</COPYRIGHT>
    <AUTHOR>name</AUTHOR>
</XEBULAINFO>

- <XEBULAFILE>
    <FILE filename="" found="yes/no">CDATA of text that was
        got</FILE>
    <DELETEFILE filename="" found="yes/no"/>
- <DIR>
    <FILENAME>filename</FILENAME>
    <FILENAME>filename</FILENAME>
</DIR>
</XEBULAFILE>
</DIGIGRATOR>
```

FIG. 5C

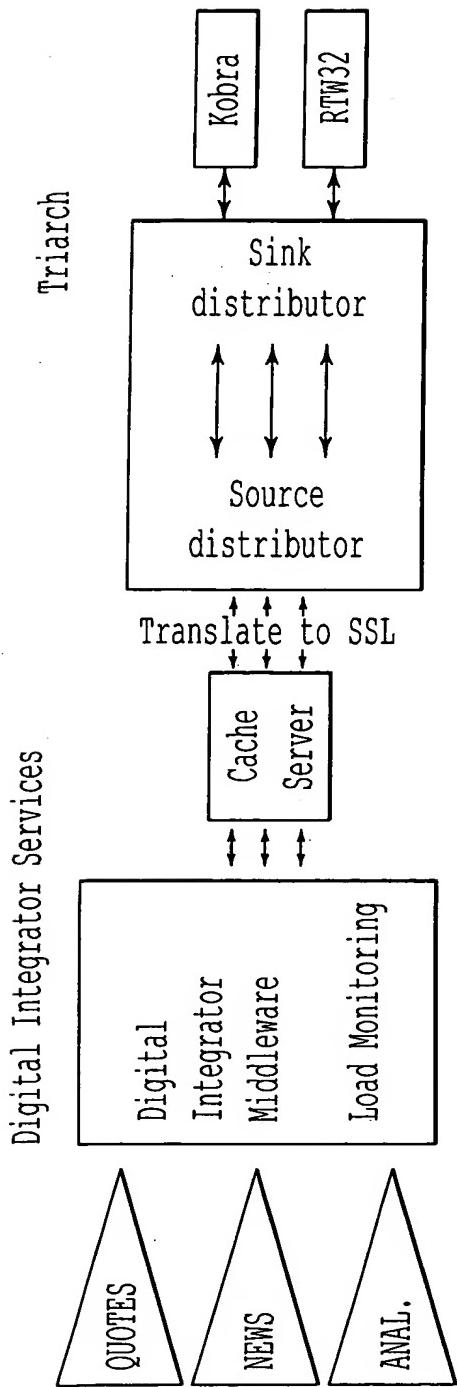
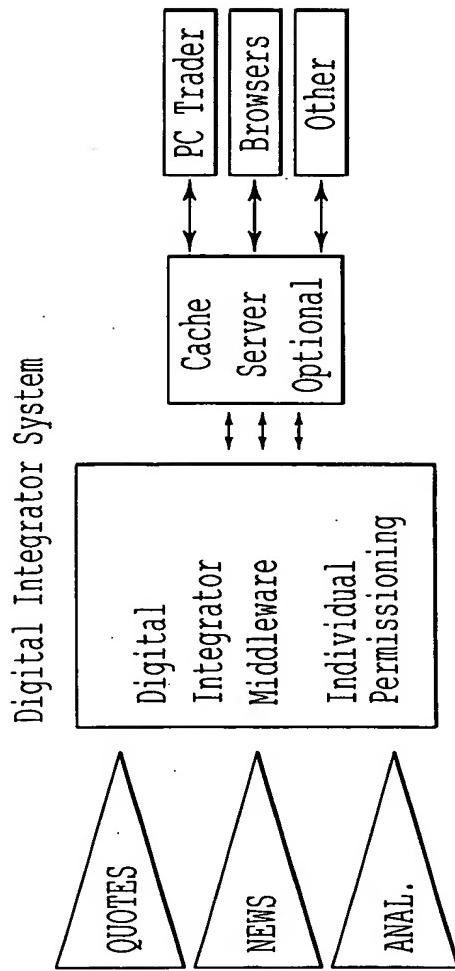


FIG. 6A



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-

PC Trader

File Edit Search Page Window Help

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F2: MARKET SUMMARY F3: NEWS F4: BILLS F5: COUPONS F6: FOREX F7: CBOT FINANCIAL FUTURES F8: PC TRADER ONE F9: BULLET POINTS! F10: EVANS REPO

TREASURY COUPONS									
	Maturity	Coupon	B-Byield	B-Ask	B-Size	Last	Byield	Chg	
2Y	9/30/02	6.000	5.9390	100.036	15X11	100.03+	5.939	+002	
5Y	5/15/05	6.750	5.8060	103.24+	1X6	103.24	5.806	+012	
10Y	8/15/10	5.750	5.7760	99.26+	2X1	99.25+	5.776	-01	
30Y	5/15/30	6.250	5.8230	105.315	**X**	105.28		-077	

FOREX SPOT									
	Symbol	Bid	Ask	Last	2	Hi	Low		
	EURUSD	0.8695	0.8701	0.8695		0.8760	0.8686		
	GBPUKD	1.4630	1.4638	1.4630		1.4656	1.4549		
	USDDJPY	107.5800	107.6700	107.5800		108.0500	107.5900		

STOCK INDICES									
	Symb	Chng	Last	2	Last	3	Last	4	Volum
D.JII	-106.82	10417.58	10417.48		10417.11	10417.48	3089		
DJIAZ	-073	10505.0	10510.0		10505.0	10510.0			
IQ_X	-55.08	3110.98	3112.37		3114.33	3114.63			
NDOZ	-54.00	3150.00	3148.00		3147.00	3145.00	116		
IN_X	-4.49	1365.47	1365.61		1365.63				

[IN] Real Time Headlines

BULLET: Correct previous item-Nasdaq off about 60 points...>

BULLET: EURO-DOLLAR: Pair recovering off its worst levels of.>

US TSYS END MIXED AS TRADERS EYE SUPPLY, STOCKS/ENERGY PRICES>

BULLET: US Agency FNMA reports following distribution on..>

BULLET: LOOK AHEAD : U.S. event calendar for Thursday kicks...>

BULLET: STOCKS: Of note, Bridge carrying a statement from...>

BULLET: Fed country risk exposure survey shows surge in bank.>

BULLET: Fed country risk exposure survey shows surge in bank.>

Market News International Menu of European Features<MNTEUR>

BULLET: Fed officials say the labor mkt might not be as.....>

[10/11/00 15:57:00]

EURO-DOLLAR: Pair recovering off its worst levels of the Nasdaq trades withing 20 points of flat, arguably a position trader mentions the pair seems heavy at the figure, how a decent offer in place.

Real Time Headlines

MARKET SUMMARY (F2)

FIG. 7

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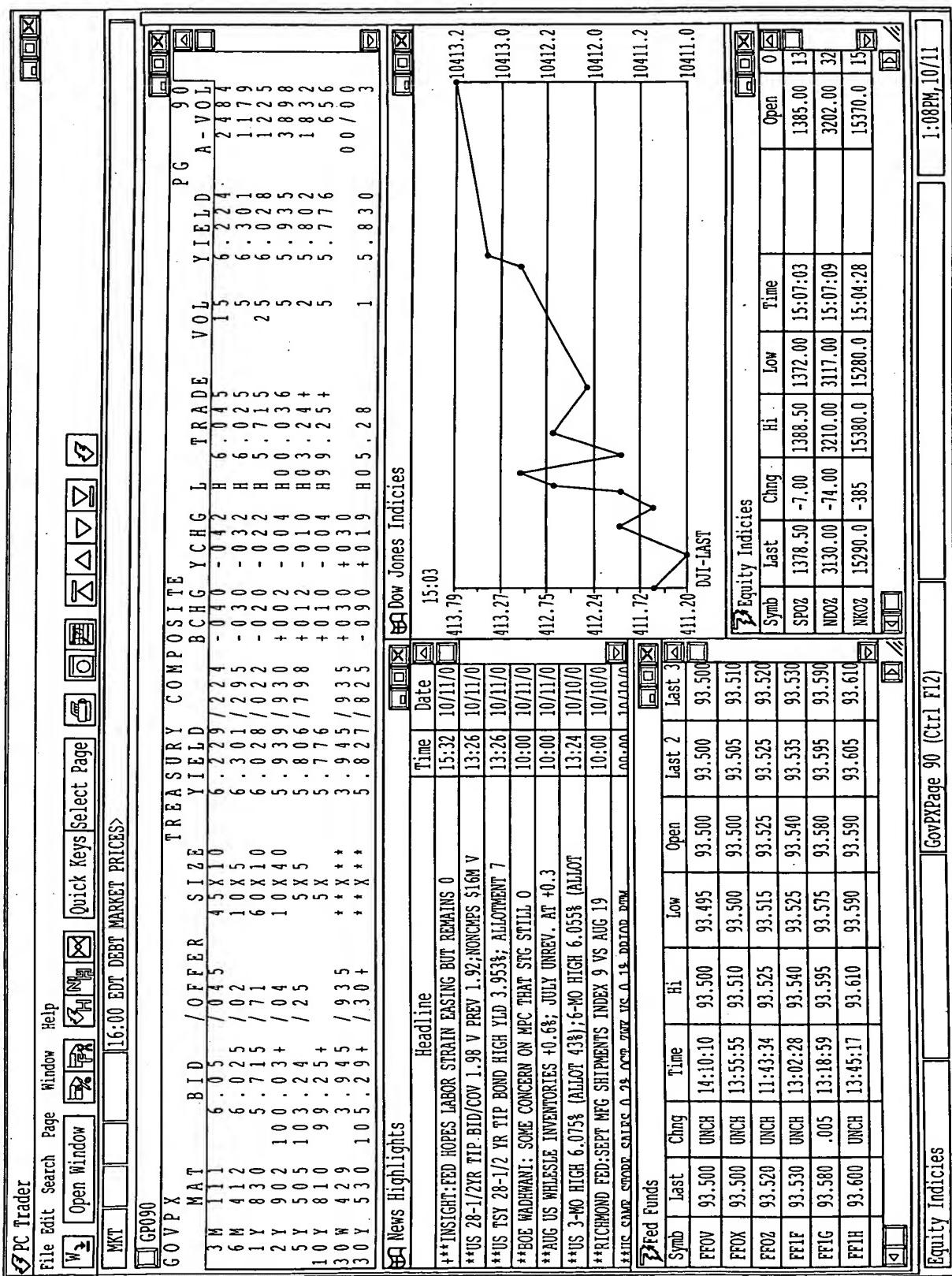
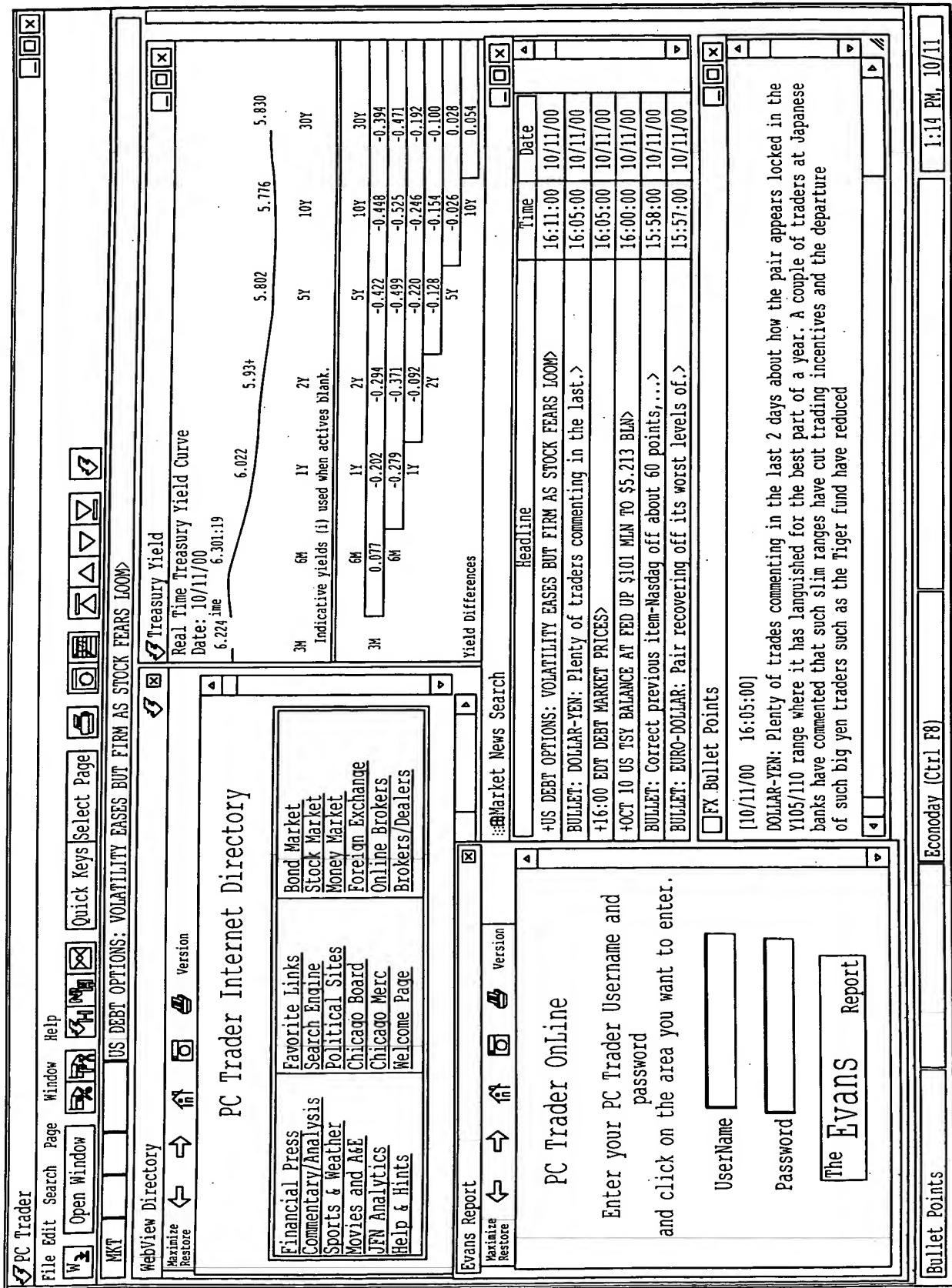


FIG. 8

FIG. 9



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Figure 10

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Figure 11

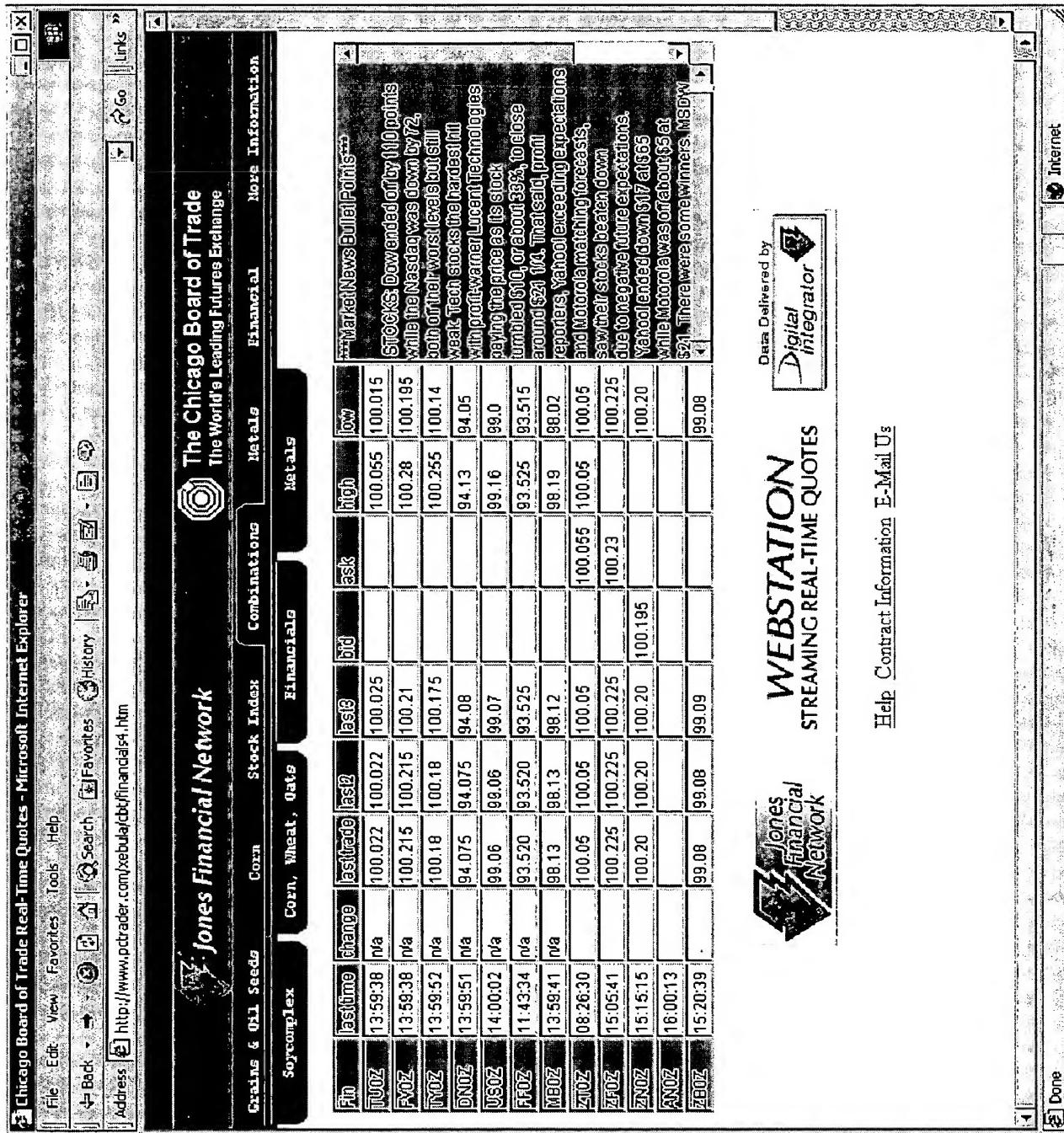


Figure 12

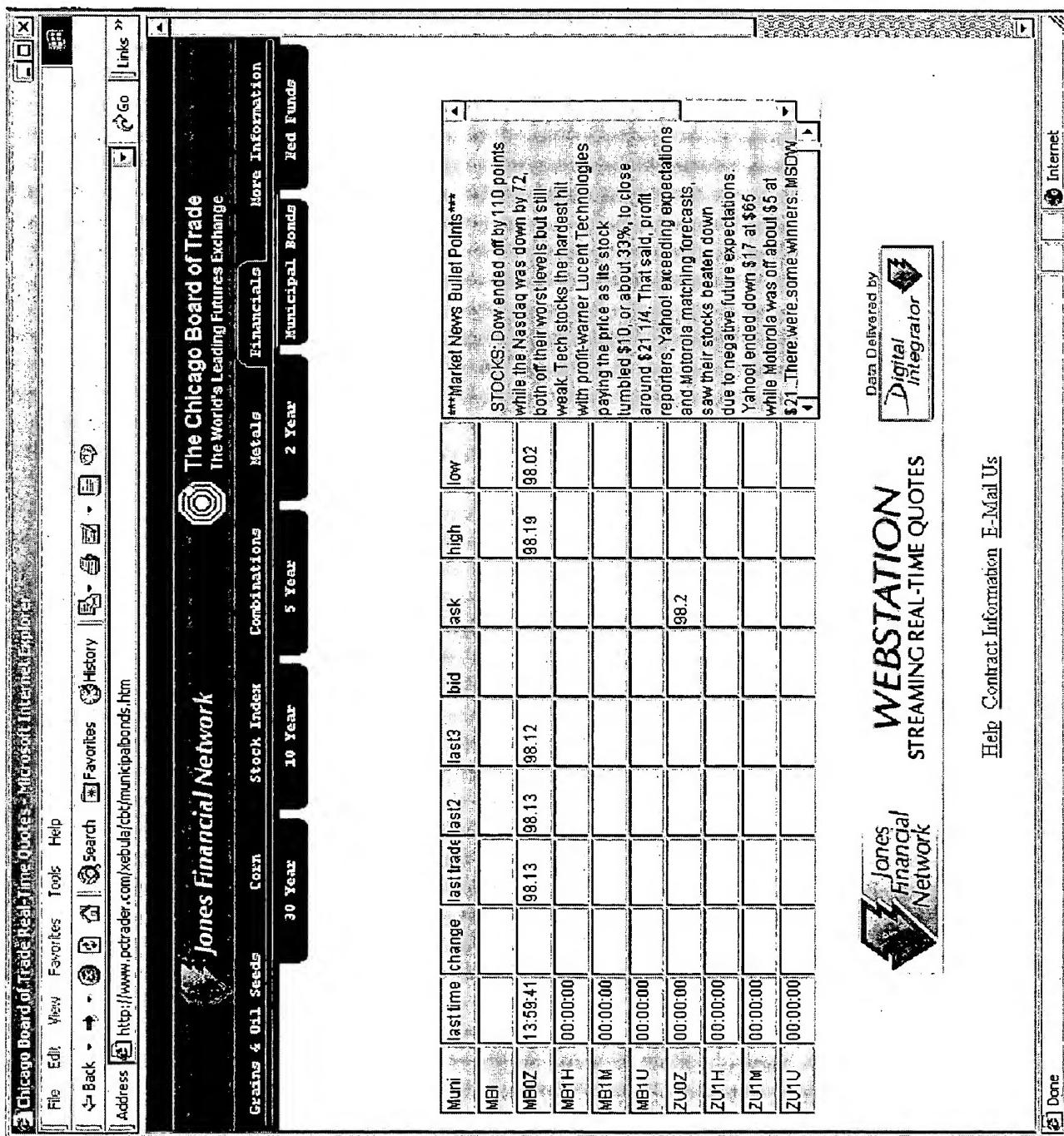


Figure 13

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Indicel	Change	Last	High	Low	NEWS M&P		
DJI	-110.61	10,413.10	10,566.10	10,350.1	(MBP) 10/11/00 16:17:00 STOCKS: Dow ended off by 110 points while the Nasdaq was down by 72, both of their worst levels but still weak. Tech stocks the hardest hit with profit-warner Lucent		
DJ0Z	-65.0	10,515.10	659.110	440.6			
IQ X	-70.85	3,100.33	3,171.41	3,086.4			
ID0Z	-85.0	3,125.03	3,215.03	3,117.0			

Equity	Change	Bid	Ask	Bid/Ask	Last	High	Low	High	Low
PHCM	-18.94	91.25	92.50	2X10	91.56	100.88	88	107.550	107.590
GWRX	-0.75	5.0	5.30	2X7	5.0	5.66	Forex	107.550	107.640
SURN	-1.31	101.69	101.94	2X11	101.88	107.56	USDJPY	0.8693	0.8699
RHAT	-1.31	12.69	12.75	20X10	12.69	13.63	EURUSD	0.8693	0.876
F	-0.82	24.19	24.44	1X1	24.31	25.19	EURJPY	93.500	93.590
T	-1.5	25.13	25.38	1X21	25.25	26.50	EURGBP	0.5943	0.5948
MSFT	1.19	56.60	56.13	9X1	55.75	56.94	EURCHF	1.5116	1.5126
CSCO	-0.06	51.13	51.19	29X7	51.19	53.38	GBPUKD	1.4627	1.4635
DRBX	-1.0	11.50	13.0	9X2	12.0	13.25	USDCHF	1.7395	1.7405

Treasury	Change	Bid	Ask	Bid/Ask	Last	Last2	Last3	Last4	Yield
3M	-0.025	6.050	6.045	45X10	6.045	6.045	6.045	6.045	6.229
6M	-0.025	6.025	6.020	15X15	6.020	6.025	6.025	6.025	6.301
1Y	-0.02	5.7125	5.710	5X5	5.710	5.715	5.715	5.710	6.025
2Y	00	100.036	100.04	1X41	100.04	100.036	100.036	100.036	5.935
5Y	01	103.242	103.25	1X5	103.244	103.244	103.244	103.24	5.804
10Y	00	99.254	99.264	4X1	99.254	99	99	99	5.804
30Y	-10	105.294	105.304	* *X**	105.28	105	105	105	5.804
TY0Z	05			* *X**	100.18	100	100	100	5.804
US0Z	00			* *X**	99.06	99	99	99	5.804
F20Z									5.804
ZF0Z	01	100.23	**X10	100.224	100	100	100	100	5.804

Level Select Client 360 70 Offset 3 10 Real 360 70 Screen 352 163 Internet

Figure 14

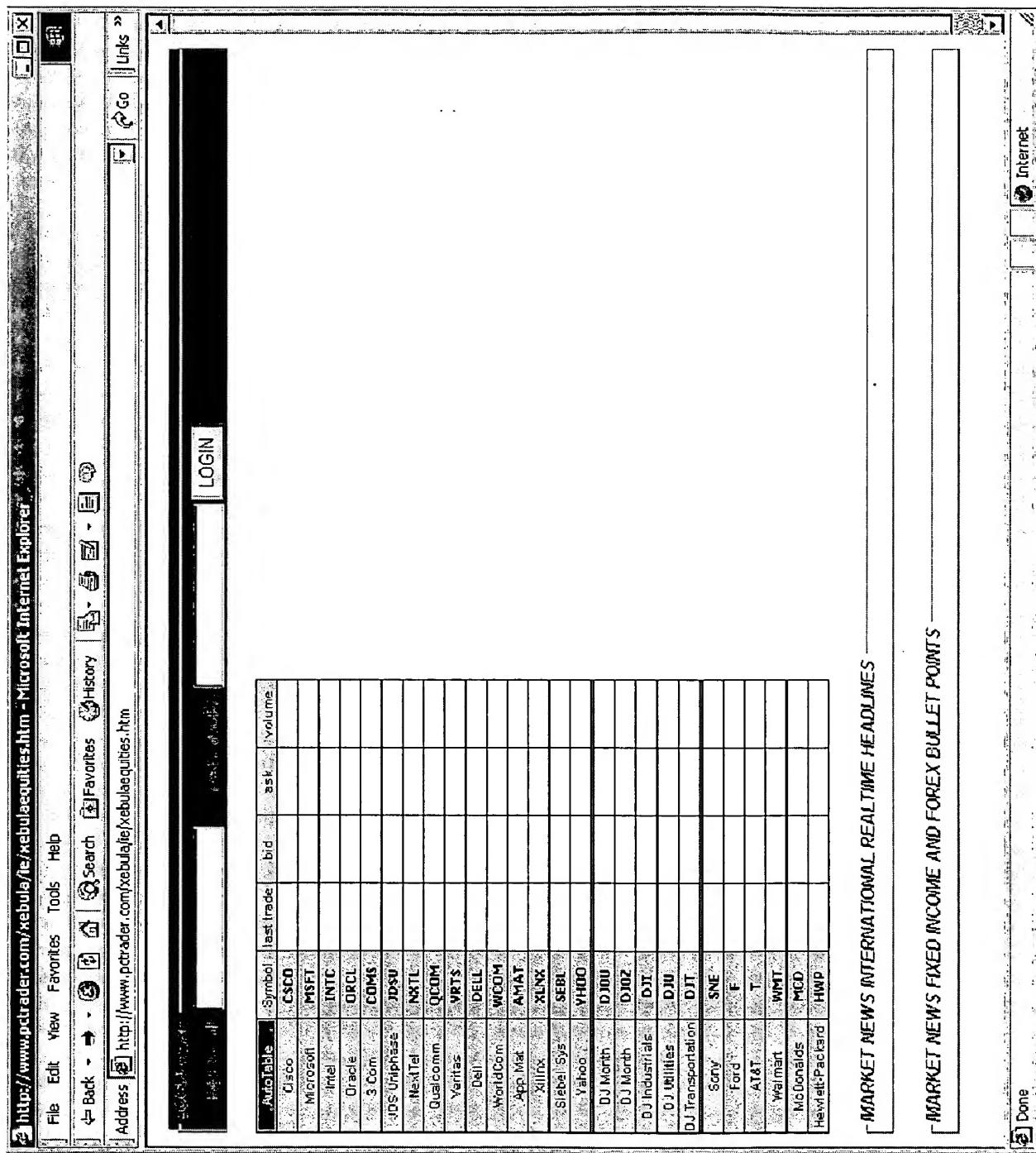


Figure 15

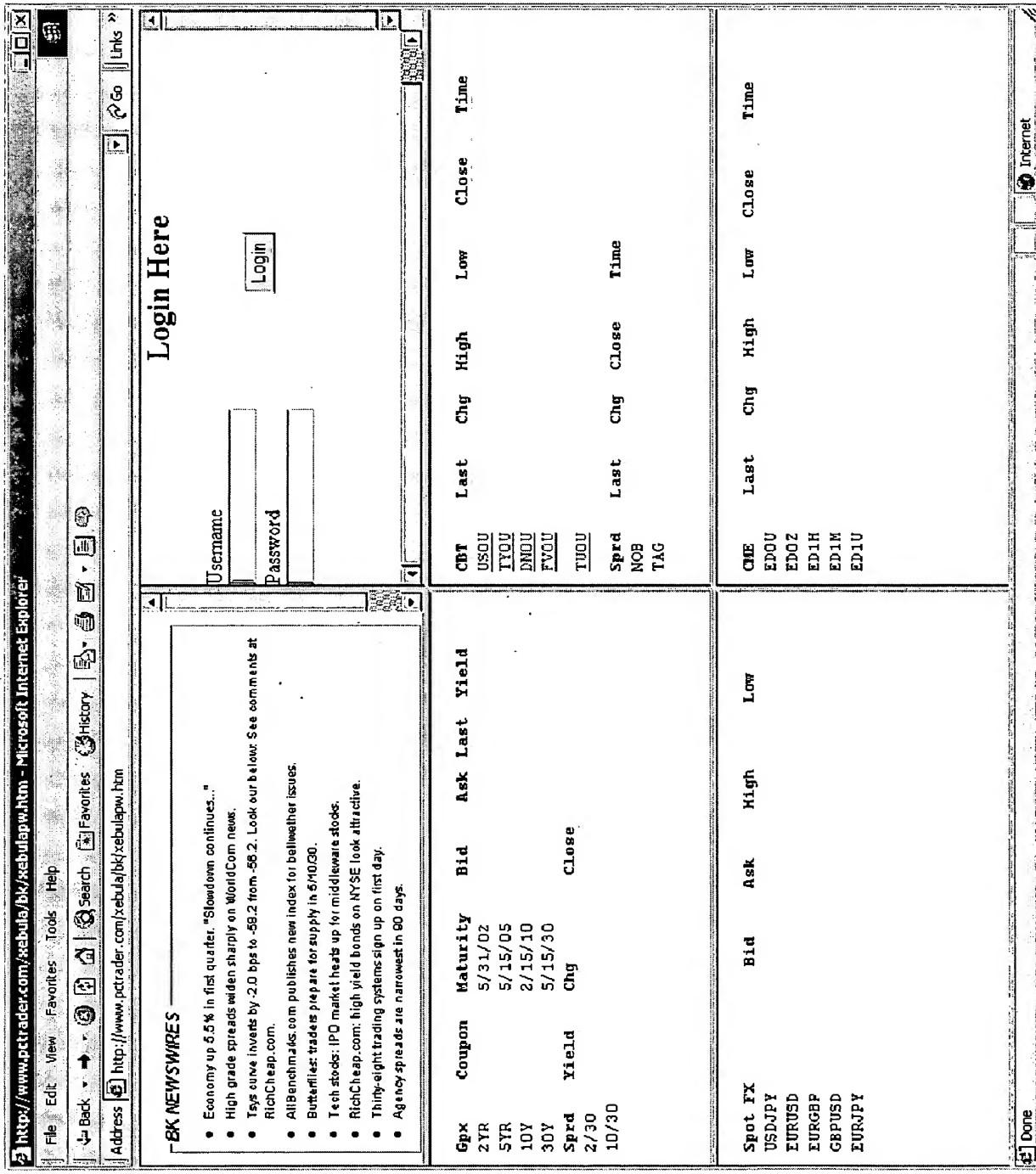


Figure 16

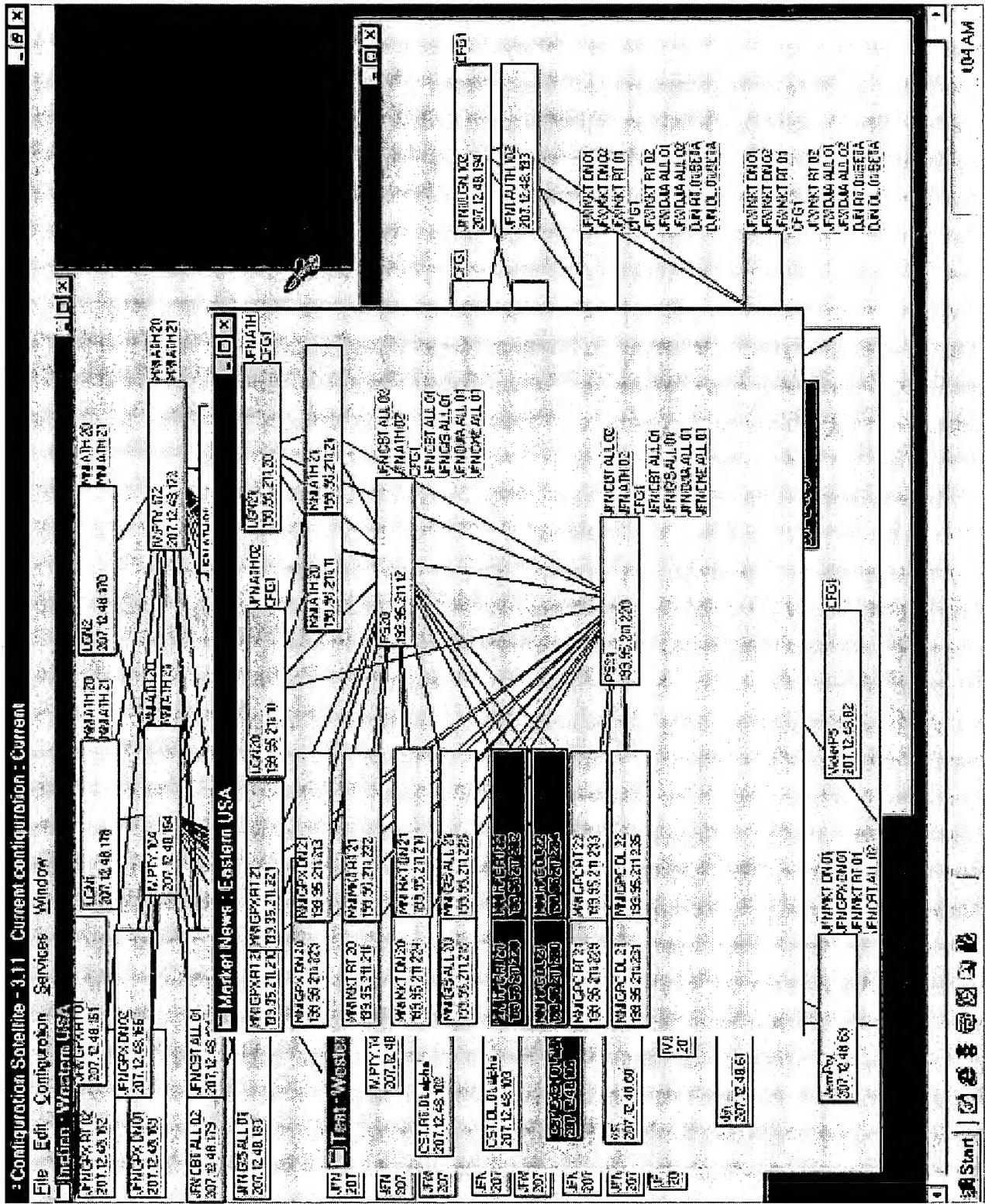


Figure 17

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